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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/195,332 11/18/98 KALYAN

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EXAMINER

NGUYEN, N

ART UNIT

PAPER NUMBER

2764

DATE MAILED: 08/31/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/195,332

Applicant(s)

Plano

Examiner

Nga B. Nguyen

Group Art Unit

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☒ Responsive to communication(s) filed on Nov 18, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-19 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-9, 11, 12, and 14-19 is/are rejected.

☒ Claim(s) 10 and 13 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. This Office Action is in response to the communication filed on November 18, 1998, which paper has been placed of record in the file.
2. Claims 1-19 are pending in this application.

Allowable Subject Matter

3. Claims 10 and 13 are objected to as being dependent upon a rejected base claims 6 and 11, respectively, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

5. Claims 11, 12, 14, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Walker et al, U.S. Patent No. 5,897,620.

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Regarding claim 11, Walker et al disclose a computer-implemented method of pricing make-to-order products, comprising the steps of:

designing a set of products, each having an associated delivery time and price (column 12, lines 27-45);

assigning a demand probability value to each of products (column 4, lines 59-65);

calculating an expected revenue from products for at least two available capacities, expected revenue being a function of demand probability values and prices (figure 6);

calculating an asking price for each of products as the difference between its expected revenue from successive available capacities (figure 8).

Regarding claim 12, Walker discloses everything claimed as applied above (see claim 11), in addition, Walker teaches expected revenue is calculated as a sum of products of probability values and prices (figure 9).

Regarding claim 14, Walker discloses everything claimed as applied above (see claim 11), in addition, Walker teaches expected revenue is calculated for each product in accordance in response to a product control policy (column 12, lines 27-45).

Regarding claim 15, Walker discloses everything claimed as applied above (see claim 11), in addition, Walker teaches the step of comparing asking price for different products at a given capacity (column 11, lines 8-60).

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al, U.S. Patent No. 5,797,127 in view of Hornick, U.S. Patent No. 5,270,921.

Regarding claim 1, Walker et al disclose a computer- implemented method of valuing products, comprising the steps of: identifying a set of product components (column 5, lines 42-65); designing a set of products form components (column 5, lines 39-column 7, lines 60); assigning a price to each product (column 2, lines 23-43); assigning demand probability values, such that a probability value is associated with each of products (column 3, lines 1-50). However, Walker et al do not disclose the steps of: calculating component values, such that a component value is obtained for each of components, by performing the following steps: a) assuming a beginning value for each of components; b) for a first component, calculating prorated values, such that for products using that component, a prorated value is calculated on that component by calculating the difference between the product price and a value of the product's other components; c) calculating a component value as a function of prorated values and probability values; d) repeating steps b and c for all components; e) determining whether component values

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converge; and f) if any component value does not converge, using the calculated component values as the beginning component value and repeating steps b through e for that component; and calculating a value for each product, based on the results of the preceding step, by adding the component value of each component of that product. Hornick discloses the steps of: calculating component values, such that a component value is obtained for each of components, by performing the following steps: a) assuming a beginning value for each of components; b) for a first component, calculating prorated values, such that for products using that component, a prorated value is calculated on that component by calculating the difference between the product price and a value of the product's other components; c) calculating a component value as a function of prorated values and probability values; d) repeating steps b and c for all components; e) determining whether component values converge; and f) if any component value does not converge, using the calculated component values as the beginning component value and repeating steps b through e for that component; and calculating a value for each product, based on the results of the preceding step, by adding the component value of each component of that product (see columns 4-14). It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Hornick's steps as above with Walker's method in order to improve the method of Walker, for the purpose of providing the steps of calculating the component values of the product in order to determine product's price.

Regarding claim 2, Walker and Hornick disclose everything claimed as applied above (see claim 1), however, Walker fails to teach step d is performed by multiplying a probability

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values times prorated values. Hornick teaches step d is performed by multiplying a probability values times prorated values (column 12, line 23-column 13, line 35). It would have been obvious to one with ordinary skill in the art at the time the invention was made to apply step d as taught by Hornick in Walker's method, for the purpose of multiplying a probability values times prorated values to perform step d.

Regarding claim 3, Walker and Hornick disclose everything claimed as applied above (see claim 1), however, Walker fails to teach step d is performed by obtaining a sum of products of probability values and prorated values. Hornick teaches step d is performed by obtaining a sum of products of probability values and prorated values (column 5, lines 5-65). It would have been obvious to one with ordinary skill in the art at the time the invention was made to use to apply step d as taught by Hornick in Walker's method, for the purpose of obtaining a sum of products of probability values and prorated values to perform step d.

Regarding claim 4, Walker and Hornick disclose everything claimed as applied above (see claim 1), in addition, Walker teaches probability values include both the probability of demand for a product and the probability that demand will arrive in a certain order vis a vis other products (columns 5-8).

Regarding claim 5, Walker and Hornick disclose everything claimed as applied above (see claim 1), in addition, Walker teaches method is performed to value non-standard products and assigning step is performed by assigning prices of standard products (column 3, lines 1-50).

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8. Claims 6, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitesage, U.S. Patent No. 5,191,523 in view of Walker et al, U.S. Patent No. 5,897,620.

Regarding claim 6, Whitesage discloses a computer-implemented method of pricing an order for a product based on varying lead times during a specified time period, comprising the steps of:

- calculating a set of values for product over a range of available supplies of product (column 7, lines 8-62);

- selecting a set of order points during time horizon, each order point having a lead time LT to the next order point (figures 7A, 7B);

- repeating calculating step for each order point (column 11, lines 23-30);

- calculating an average displaced revenue (column 11, lines 40-57); and

- calculating the price for order, using the results of the preceding step (column 9, line 7-column 10, line 15).

However, Whitesage fails to disclose the steps of: determining a size Q of order; for a first order point, calculating an incremental production quantity as Q/LT , and calculating revenue displaced by incremental production quantity using set of product values. Walker et al disclose the steps of: determining a size Q of order; for a first order point, calculating an incremental production quantity as Q/LT , and calculating revenue displaced by incremental production quantity using set of product values (column 11, lines 50-60). It would have been obvious to one with ordinary skill in the art at the time the invention was made to use production quantity as

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taught by Walker in Whitesage's method because it would improve the method of Whitesage by calculating revenue displaced by incremental production quantity using set of product values.

Regarding claim 7, Whitesage and Walker disclose everything claimed as applied above (see claim 6), in addition, Whitesage teaches product has multiple components and further comprising the steps of repeating all steps for each component and adding the results (column 7, lines 54-62 and column 11, lines 23-30).

Regarding claim 9, Whitesage and Walker disclose everything claimed as applied above (see claim 6), however, Whitesage fails to teach displaced revenue is calculated by integrating a curve representing set of product values. Walker teaches displaced revenue is calculated by integrating a curve representing set of product values (see figure 5). It would have been obvious to one with ordinary skill in the art at the time the invention was made to use a curve representing set of product values, as taught by Walker in Whitesage's method, for the purpose of calculating the revenue by integrating a curve representing set of product values.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whitesage, U.S. Patent No. 5,191,523 in view of Walker et al, U.S. Patent No. 5,897,620 and further in view of Hornick, U.S. Patent No. 5,270,921.

Regarding claim 8, Whitesage and Walker disclose everything claimed as applied above (see claim 7), but they fails to teach set of minimum acceptable values is calculated by a) assuming a beginning value for each of components; b) for first component, calculating prorated values, such that for each product using that component, a prorated value is calculated on that

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component by calculating the difference between the product price and a value of the product's other components; c) calculating a component value as a function of prorated values and probability values; d) repeating steps b and ca for all components; e) determining whether component values converge; and f) if any component value does not converge, using the calculated component values as the beginning component value and repeating steps b through e for that component; g) adding the values of each component. Hornick teaches set of minimum acceptable values is calculated by a) assuming a beginning value for each of components; b) for first component, calculating prorated values, such that for each product using that component, a prorated value is calculated on that component by calculating the difference between the product price and a value of the product's other components; c) calculating a component value as a function of prorated values and probability values; d) repeating steps b and ca for all components; e) determining whether component values converge; and f) if any component value does not converge, using the calculated component values as the beginning component value and repeating steps b through e for that component; g) adding the values of each component. (see columns 4-14). It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Hornick's steps as above with Walker's method in order to improve the method of Walker, for the purpose of providing the steps of calculating the component values of the product in order to determiner product's price.

10. Claims 16-19 are written in means and contain the same limitations as method claims 1, 6, 11, and 14, respectively, therefore are rejected by the same rationale.

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Conclusion

11. Claims 1-19 are rejected.
12. Claims 10 and 13 are objected to.
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nga B. Nguyen, whose telephone number is (703) 306-2901.

The examiner can normally be reached on Monday-Thursday from 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammell, can be reached on (703)305-9768.

14. **Any response to this action should be mail to:**

Commissioner of Patents and Trademarks
c/o Technology Center 2700
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

or:

(703) 308-5397 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II,
2121 Crystal Drive, Arlington.

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VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)305-3900.

Nga B. Nguyen
August 23, 1999



James P. Trammell
Supervisory Patent Examiner
Technology Center 2700